

REMARKS

The claims remaining in the application are claims 1-8, 13-19, 21, and 24-30.

The Advisory Action states that applicant alleges that Seeman fails to disclose the features of claim 30 without explaining why. It is respectfully submitted that a careful comparison of Seeman and claim 30 reveals that Seeman is not a proper anticipatory reference of claim 30. Further explanation is respectfully submitted hereinbelow.

The final Office Action of December 26, 2002 states: "Claim 30 is rejected under 35 USC 102(b) as being clearly anticipated by Seeman (US 4,498,918). The features of applicant's claims can be found in col. 3, lines 3-8 and col. 3, lines 44 to col. 4, line 30." Applicant again respectfully traverses this rejection.

Applicant is intimately familiar with Seeman '918 inasmuch as Seeman '918 is the earlier invention of the co-inventor herein.

Seeman '918, column 3, lines 3-8 states: "The methyl acetylene/propadiene gas used in the foregoing Example was purchased under the indicated name from Gulf Oil Canada Limited; it contained 41.73 weight percent of methyl acetylene and propadiene, 6.37 weight percent of butanes, 44.24 weight percent of propylene and 7.66 weight percent of propane."

First, claim 30 requires "approximately 90% by volume of a mixture of methylacetylene, propadiene and propylene; and approximately 10% by volume of propane". The hydrocarbon fuel gas mixture of claim 30 does not contain any butanes. In contrast, the quoted portion of Seeman '918 requires "6.37 weight percent of butanes".

Secondly, claim 30 requires "approximately 90% by volume of a mixture of methylacetylene,

propadiene and propylene". In contrast, the quoted portion of Seeman '918 discloses 41.73 weight percent of methylacetylene and propadiene, and 44.24 weight percent of propylene. It is respectfully submitted that 41.73 weight percent of methylacetylene and propadiene plus 44.24 weight percent of propylene is not a disclosure of nor an anticipation of "approximately 90% by volume of a mixture of methylacetylene, propadiene and propylene" as required by claim 30.

Thirdly, claim 30 requires "approximately 10% by volume of propane". In contrast, the quoted portion of Seeman '918 requires "7.66 weight percent of propane". It is respectfully submitted that "7.66 weight percent of propane" is not a disclosure of nor anticipatory of a hydrocarbon fuel gas mixture which includes "approximately 10% by volume of propane" as required by claim 30.

The foregoing distinctions apply with even greater force to Seeman '918, column 4, lines 21-25 which states: "Usually, the gas mixture contains from 1 to 10 volume percent of the hydrocarbon containing an acetylenic triple bond with from 99 to 90 volume percent of the methyl acetylene/propadiene gas."

The antecedent of the phrase "the methylacetylene/propadiene gas" at Seeman '918, column 4, lines 24-25, is the methylacetylene/propadiene gas described at Seeman '918, column 3, line 3-8, which gas contains butanes (not included in applicant's claim 30) and the various weight percents of the other components which differ from the volume percents specified in claim 30.

The Seeman '918, column 4, lines 21-24, disclosure of 1-10 volume percent of the hydrocarbon containing an acetylenic triple bond, is not a disclosure of "approximately 10% by volume of propane" (required by claim 30) because propane is not a hydrocarbon containing an acetylenic triple bond.

Moreover, even if propane was a hydrocarbon containing an acetylenic triple bond (which it is not) the 1 to 10 volume percent of such a hydrocarbon plus the 4.76 weight percent of propane disclosed at Seeman '918, column 3, line 8, is not a disclosure of "approximately 10% by volume of propane" required by claim 30.

In light of the foregoing, applicant respectfully submits that Seeman '918 is not anticipatory of claim 30. Favorable reconsideration is requested on this point, with a view toward withdrawing the 35 USC 102 rejection of claim 30.

The Advisory Action of April 3, 2003 asserts that applicant states that Virey fails to disclose certain features of claims 1-10 and 21-23 but does not address the examiner's prima facie case of obviousness. Applicant again respectfully traverses this based on the reasons set forth hereinbelow.

First, it is respectfully submitted that the Virey rejection relates to claims 1-8 and 21, because the previous Amendment cancelled claims 9, 10, 22 and 23.

Secondly, it is noted that the Examiner concedes that: Virey does not teach the use of MAPP gas, per se; Virey does not teach mold heating, per se; Virey does not teach mold heating prior to or during a production run; and that it is the position of the Examiner that the broad recitation of "MAPP gas" reads on the disclosed hydrocarbon mixtures of Virey.

It is respectfully submitted that the claims no longer recite MAPP gas.

Claim 1, and the claims dependent thereon, require "a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of methylacetylene, propadiene and propylene". In contrast, the teaching of Virey is that the gaseous hydrocarbons comprise at least 15% of a constituent in respect of which the ratio of the number of carbon atoms to the number of hydrogen atoms is higher than 0.75. It is respectfully submitted that none of the claims rejected on Virey

specify a gaseous hydrocarbon comprising at least 15% of a constituent in respect of which the ratio of the number of carbon atoms to the number of hydrogen atoms is higher than 0.75.

-Furthermore, Virey does not disclose nor make obvious:

the use of a hydrocarbon fuelgas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, as required by applicant's claim 1;

nor the use of a hydrocarbon fuelgas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and wherein the heating of the glass contacting surface to a predetermined operating temperature is done before the glass contacting surfaces begin a production run, as required by claim 2:

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and wherein the heating of the glass contacting surfaces to a predetermined operating temperature is done to maintain the glass contacting surfaces at the predetermined operating temperature during a production run, as required by claim 3;

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and wherein the heating of the glass contacting surfaces to a predetermined operating temperature is done before the glass contacting surfaces begin a production run and is also done to maintain the glass contacting surfaces at the predetermined operating temperature during a production run, as required by claim 4:

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and approximately 10% by volume of propane, as required by claim 5;

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and approximately 10% by volume of propane, and wherein the heating of the glass contacting surfaces to the predetermined operating temperature is done before the glass contacting surfaces begin a production run, as required by claim 6;

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and approximately 10% by volume of propane, and wherein the heating of the glass contacting surfaces to the predetermined operating temperature is done to maintain the glass contacting surfaces at the predetermined operating temperature during the production run, as required by claim 7;

nor the use of a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and approximately 10% by volume of propane, and wherein the heating of the glass contacting surfaces to the predetermined operating temperature is done before the glass contacting surfaces begin a production run and is also done to maintain the glass contacting surfaces at the predetermined operating temperature during a production run, as required by claim 8;

nor a method of heating glass contacting surfaces, comprising the steps of at the start of production, heating the glass contacting surfaces using a mixture of methylacetylene, propadiene and propylene with the addition of approximately 10% air, and after said glass contacting surfaces have warmed-up, said glass contacting surfaces are heated with only said mixture of methylacetylene, propadiene and propylene, as required by claim 21.

Furthermore, the artisan having the Virey reference in front of him would be led to use a

gaseous hydrocarbon comprising at least 15% of a constituent in respect to which the ratio of the number of carbon atoms to the number of hydrogen atoms is higher than 0.75, which is a teaching away from the features specified in applicant's claims.

In view of the foregoing, applicant respectfully requests that the Examiner reconsider the obviousness rejection of claims 1-8 and 21, with a view towards withdrawing same.

Claims 13-19, and 24-29 stand rejected under 35 USC 103(a) as being unpatentable over Virey in view of Eagle US 5,888,266. Applicant again respectfully traverses this rejection.

The Examiner concedes that: Virey does not teach changing the gas mixture while maintaining the flame to either inhibit or promote carbon skeletal formations; and that Virey does not disclose venturi mixers.

It is respectfully submitted that Virey and Eagle '266, taken singly or in combination, fail to disclose or make obvious:

a method of heating glass contacting surfaces including the steps of heating the glass contacting surfaces to a predetermined operating temperature, wherein said heating is started with a 100% mixture of methylacetylene, propadiene and propylene to limit carbon skeleton formation, and then there is introduced a small quantity of natural gas which has extra hydrogen atoms to give a suppressive influence for carbon formation, and the heating is maintained to avoid any chance of dirty glass contacting surfaces (as required by claim 13);

nor said method of claim 13 wherein the heating of the glass contacting surfaces to said predetermined operating temperature is done before the glass contacting surfaces begin a production run (as required by claim 14);

nor the method of claim 13 wherein the heating of the glass contacting surfaces to said

predetermined operating temperature is done to maintain the glass contacting surfaces at the predetermined operating temperature during a production run (as required by claim 15);

nor the method of claim 13 wherein the heating of the glass contacting surfaces to the predetermined operating temperature is done before the glass contacting surfaces begin a production run, and is also done to maintain the glass contacting surfaces at the predetermined operating temperature during a production run (as required by claim 16);

nor the method of claim 13, wherein if propagation of carbon skeletons is too abundant, then the 100% mixture of methylacetylene, propadiene and propylene is turned off for a predetermined period of time to restore the glass contacting surfaces to a clean condition (as required by claim 17);

nor a method of heating glass contacting surfaces including the steps of heating said glass contacting surfaces to a predetermined operating temperature, wherein the heating is started with a 100% mixture of methylacetylene, propadiene and propylene to limit skeleton formation, then said 100% mixture is mixed with air to produce a heat transfer system which will maintain a sustained temperature on the average of 1800° K, and the heating is maintained to avoid any chance of dirty glass contacting surfaces (as required by claim 18);

nor the method of claim 18, wherein in the mixing step, the mixture of methylacetylene, propadiene and propylene is mixed with air and natural gas (as required by claim 19);

nor a method of heating glass contacting surfaces in ring and plunger assemblies, including the steps of heating the glass contacting surfaces to a predetermined operating temperature, and wherein said heating is accomplished by combustion of a predetermined gas in a flame, and the heating utilizes a mixture of methylacetylene, propadiene and propylene mixed with approximately 40% of natural gas to ensure the best heat control to eliminate the condition called glass press-up (as

required by claim 24);

nor a method of heating glass contacting surfaces when large punch bowls or large pitchers are in production, including the steps of heating the glass contacting surfaces by using a mixture of methylacetylene, propadiene and propylene mixed with at least 20% natural gas (as required by claim 25);

nor a method of heating glass contacting surfaces to attain a balance of letting unsaturated hydrocarbons release heat and produce carbon thermal barriers in a uniform process, including the steps of heating the glass contacting surfaces by combustion of a predetermined gas mixture in a flame, introducing through a main line a 100% mixture of methylacetylene, propadiene and propylene, connecting to the main line an air line with a first venturi, connecting to the main line a natural gas line with a second venturi, and obtaining the predetermined gas mixture by blending the mixture of methylacetylene, propadiene and propylene with air and/or natural gas (as required by claim 26);

nor the method of claim 26 wherein heating of the glass contacting surfaces is started with a 100% mixture of methylacetylene, propadiene and propylene, and thereafter, to limit carbon skeleton formation, there is introduced a small quantity of natural gas which has extra hydrogen atoms that give a suppressive influence for carbon formation, and maintaining this reaction to avoid any chance of dirty molds or other dirty glass contacting surfaces (as required by claim 27);

nor the method of claim 27 wherein, if propagation of carbon skeletons is too abundant, turning off the supply of methylacetylene, propadiene and propylene for a predetermined period of time (as required by claim 28);

nor the method of claim 26 wherein said 100% mixture of methylacetylene, propadiene and

propylene is mixed with air to produce a heat transfer system which will maintain at least 1800° K at all times (as required by claim 29).

In the final Office Action, the Examiner asserts that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to change the mixture of Virey with natural gas because Eagle et al taught that a carbon deposit could be removed from a plunger by increasing the methane proportions in a MAPP gas mixture.

In the final Office Action the Examiner further asserts that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the venturi mixer of Eagle et al in the process of Virey et al because Eagle et al showed that it was a well known gas mixing means in the art of heating molds with combustible hydrocarbon gases.

However, using the Virey mixture with natural gas, or using Eagle's venturi mixer in the process of Virey would not result in the invention claimed by applicant. In this connection, applicant incorporates by reference thereto the arguments and distinctions set forth above with respect to the obviousness rejection based on Virey alone.

In light of the foregoing, applicant respectfully requests that the Examiner reconsider the obviousness rejection based on Virey in view of Eagle with a view towards withdrawing same.

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

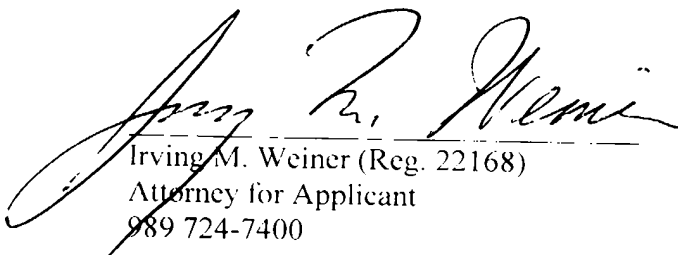
If the Examiner does not believe the application is not in condition for allowance, it is respectfully requested that the Examiner telephone the undersigned attorney for applicant in an effort to facilitate the prosecution, or to narrow the issues for appeal, if necessary.

Applicant is filing herewith a Notice of Appeal, a Petition For Extension, and a Form 2038 for each fee.

Favorable reconsideration is respectfully requested.

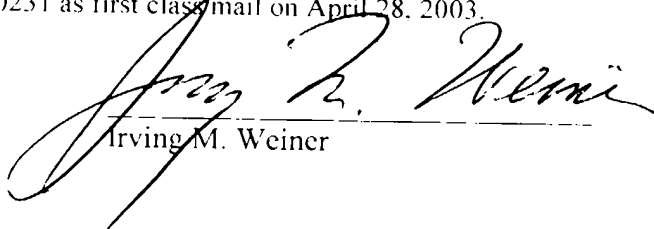
Respectfully submitted,

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Certificate of Mailing

I hereby certify that the foregoing amendment with its mentioned attachments were mailed to Box AF, Commissioner for Patents, Washington, D.C. 20231 as first class mail on April 28, 2003.


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